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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,350	08/21/2001	Andrew James Osborne	GB920000081US1	7856

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EXAMINER

KENDALL, CHUCK O

ART UNIT PAPER NUMBER

2122

DATE MAILED: 04/19/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/934,350	OSBORNE ET AL.	
	Examiner	Art Unit	
	Chuck O Kendall	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4, 5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the application filed 08/21/01.
2. Claims 1 - 16 have been examined.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claim 1, 2, 4 – 8 & 10 – 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Gillis et al. USPN 6,286,035 B1.

Regarding claim 1, a method (9: 30 – 10: 53), system (FIG. 1), and computer program (FIG. 1, 90 and 100 for system and object codes) of recognizing command related items in a body of object code, said command related items corresponding to command names and/or associated option names from a textual programming language the method comprising:

entering a list of entries each comprising a required command name and/or option names in programming language textual form into a filter table (2:35 – 45, see storing command messages, and accessing tables);

scanning the body of object code for all bit strings potentially representing command names and identifying such command names (3: 40 – 50, see strings and also see 4: 45 – 50);

for each potential command name so identified, examining a number of succeeding bits for bits which represent valid options for each said command name to further identify commands having valid combinations of command names and options (4: 45 – 60, see validate function); and

for said identified commands, comparing said identified command names and/or option names in programming language textual form with the entries of said filter table to determine whether or not they match any of the list of required command names and/or options in said filter table (4: 26 – 30, also 7: 62 – 64).

Regarding claim 2, a method as claimed in claim 1 including the further step, after said scanning and examining steps, of validating the syntax of each command comprising a command name followed by one or more valid option names and comparing only validated command names and /or option names with the entries in the filter table (7: 50 – 64, see valid messages and tables).

Regarding claim 4, a method as claimed in claim 1 in which said filter table entries can specify both the presence and the absence of respective command names and/or option names in the scanned and examined object code (FIG. 3, see 200 – 210, see parameter name).

Regarding claim 5, a method as claimed in claim 1 in which at least some of said filter table entries include combinations of command and/or option names, comprising the further step of checking the syntax of said combination entries to the filter table (4: 55 – 60, see validate for checking syntax).

Regarding claim 6, a method as claimed in claim 1 in which the scanning and examining steps involve comparing object code bit strings with bit strings extracted from a library which represent all possible command names and options for said programming language (See 7: 62 – 64 for compare).

Regarding claim 7, the system version of claim 1, see rationale as previous discussed above.

Regarding claim 8, the system version of claim 2, see rationale as previous discussed above.

Regarding claim 10, a system as claimed in claim 7 in which said filter table entries can each specify both the presence and the absence of respective command names and /or option names in the scanned and examined object code and said filter is responsive to said specification in determining whether or not said identified command names and/or option names match said filter table entries (See 7: 62 – 64 compare for match).

Regarding claim 11, the system version of claim 5, see rationale as previous discussed above.

Regarding 12, a system as claimed in claim 7, further comprising a library containing bit strings representing all possible command names and options for said programming language (7: 13 – 15).

Regarding claim 13, a system as claimed in claim 7 in which said filter is arranged to generate a list of matching commands (7: 45 – 55).

Regarding claim 14, computer program version of claim 1, see rationale as previously discussed above.

Regarding claim 15, computer program version of claim 2, see rationale as previously discussed above.

Regarding claim 16, a computer program as claimed in claim 15 further including a two dimensional array data structure the rows and columns of which are indexed by each of a pair of supplied bytes in said object code respectively (7:45 – 50), and a file parser object for supplying successive pairs of object code bytes to said array, the array comprising pointers to respective verb objects for each pair of supplied bytes representing a potentially valid command, the file parser object initiating respective verb objects in response to the return of a pointer from said array (7: 45 – 55, see pointer or unique key).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 3 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gillis et al. USPN 6,286,035 B1 (hereinafter "Gillis") as applied in claim 2 & 8, in view of Lenkov et al. USPN 5,361,351 (hereinafter "Lenkov").

Regarding claim 3, Gillis discloses all the claimed limitations as applied in claim 2 above. Gillis doesn't explicitly disclose syntax validation comprises applying each said command to a syntax tree. However, Lenkov et al. does disclose this in analogous art (8: 55 – 60) stating that the AST models the structure of the code being compiled and is composed of subtrees which represent function definitions, statements and expressions. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Gills and Lenkov, because using AST's enables code to be structured and parsed more efficiently.

Regarding claim 9, the system version of claim 3, see rationale as previous discussed above.

Correspondence Information

7. Any inquires concerning this communication or earlier communications from the examiner should be directed to Chuck O. Kendall who may be reached via telephone at (703) 308-6608. The examiner can normally be reached Monday through Friday between 8:00 A.M. and 5:00 P.M. est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam *can be* reached at (703) 305-4552.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

For facsimile (fax) send to central FAX number 703-872-9306 and 703-7467240 draft.

Chuck O. Kendall

Software Engineer Patent Examiner

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**ANTONY NGUYEN-BA
PRIMARY EXAMINER**